UDUPI COCHIN SHIPYARD LIMITED

Ministry of Ports, Shipping and Waterways,
Government of India

UDUPI COCHIN SHIPYARD LIMITED

CONTRACT CELL DEPARTMENT

CORRIGENDUM - 3

EXTENSION OF TENDER OPENING DATE & CHANGE IN SCOPE

Tender No.: UCSL/CC/T/U&M/326 Date: 22-03-2025

Sir,

CORRIGENDUM-3 – TENDER FOR REVIVAL OF BLASTING CHAMBER

The following terms of the subject tender is amended as follows:

1. Tender opening date;

FOR	READ AS
24th March 2025 (Monday), 16:00 Hrs	27th March 2025 (Thursday), 16:00 Hrs

2. Addition in the scope of works. (Enclosed as Annexure-IA)
(Note: Highlighted text is being added as amendment to the scope of works)

3. Payment terms are being revised: (Clause No: 9.1)

FOR	READ AS
9.1. Payment will be done in Two (02) stages: **STAGE-I:** 1. 70% of the value of the equipment with its allied accessories, supplied with necessary Test Certificates/documentation, as applicable, including its acceptance and certification by the UCSL-officer-in-charge. **STAGE-II:** 1. 100% of service part will be paid after satisfactory completion of the work including commissioning of blasting chamber. 2. Balance 30% of the supply value will be released, only after satisfactory completion & commissioning of the entire work and acceptance by UCSL.	9.1. Payment will be done in Three (03) stages: **STAGE-I:** 1. After the successful FAT (Factory Acceptance Test) of the prefabricated materials and panel at the vendor facility – 30% of the total work order. **STAGE-II:** 1. After the delivery of all materials at the Malpe site, with its allied accessories, supplied with necessary Test Certificates/documentation, as applicable, including its acceptance and certification by the UCSL-officer-in-charge – 30% of the total work order. **STAGE-III:** 1. After installation, a successful trial run, and a satisfactory report from the officer in charge of UCSL – 40% of the total work order.

4. All the other terms and conditions of the tender enquiry remains unchanged.

For Udupi Cochin Shipyard Limited,
Assistant General Manager (Materials & Contract Cell)

अनुबंध कक्ष CONTRACT CELL

गणेश आचार्य
GANESH ACHARY
प्रबंधक/MANAGER
उडुपि कोचीन शिपयार्ड लिमिटेड
UDUPI COCHIN SHIPYARD LIMITED
माल्पे, कर्नाटक/MALPE, KARNATAKA-576 108

Scope of Work: Revival of Blasting Chambers at UCSL, Malpe Plant

1. Overview

The project involves the replacement and upgrading of the existing portable blasting machines and abrasive recovery systems in the chamber 1. The goal is to enhance operational efficiency, safety, and reliability. The following scope of work outlines the detailed activities and deliverables based on the vendor's proposal.

2. Equipment Supply

a. Abrasive Suction Recovery and Cleaning System

- Twin cyclone recovery system (manufactured with wear-resistant steel).
- Discharge hopper
- auto-controlled airtight valves and level sensors.
- Pneumatic separation system for cleaning used abrasives and removing foreign particles.
- Dust collector with cartridge filters for separator system.
- Maintenance platform, support structures, and ladders.
- Suction and discharge hoses (total 100 meters).
- Electrical control systems and cabling.
- Existing PBM system need to remove from the chamber

Twin cyclone system will be mounted above the storage hopper. Suction hose which is coming from blast room will be connected on suction side of this cyclone system. From the other side the discharge hose will be connected to existing vacuum pump system. Cyclone system will be manufactured from wear resistance steel and all joints will be sealed with rubber gaskets. Cyclone system will be equipped with level sensor and automatic controlled airtight valve. Discharge hopper is connected to cyclone with suitable valve, level sensor etc. This hopper will act as intermediate equipment between cyclone and abrasive separator.

Auto control valves with level sensors are provided for proper operation of the system. Pneumatic septation and cleaning system is provided for cleaning of used abrasives and separation of foreign particles from the system. Door is provided for internal cleaning and maintenance purpose. Suitable dust collector with cartridge filter system will be provided for separator system. Hose connectors with suitable clamps will be

provided for connecting the suction and discharge hoses. Suitable support structure with platform, gratings, handrails, toe guards, Ladder, etc. need to be provided,

Pneumatic Separator System: The quality of blasting and wear & tear of equipment is totally dependent on the effectiveness of the abrasive separation system. A well-designed pneumatic-type separator is a part of this system. Separator is the equipment to clean the spent abrasive by removing the dust, any coarse items, foreign particles etc. and discharge, clean and reusable abrasives in to the storage hopper located below it.

The used abrasives discharged by elevator are passed through the separator for cleaning. Dust collector which is connected to the separator to sucks all the dust discharges.

Abrasive control valve fitted on the discharge points of the separator storage hopper will control the flow of abrasive to the pressure blasting equipment. These valves are operated automatically by pneumatic control system.

Abrasive control Valve: The Abrasive Control Valves plays an important role of feed and control of abrasive to the system. The abrasive feed to the system is important and failure in control of the same results in- either overflow of Abrasives or there is no feed in the guns. The valve is actuated by pneumatic cylinder, which is controlled by a solenoid operated valve. A timer signals these valves for both start and stop operation. The operation of each valve is instantaneous. Two modes of operation are possible one Manual and two the Synchronized thereby providing flexibility in operation.

b. Abrasive Storage and Re-feed System

- Storage hopper with a capacity of 20MT.
- Manual and auto operation required in the main hopper to feed the pressure blasters.
- Four partitions for feeding pressure blasters, with level sensors for low and high indications.
- Four abrasive control valves for feeding pressure blasters (automatic and manual operation).
- Maintenance platform and support structures.

This abrasive storage and re feeding system are located below the pneumatic separation system. It will have capacity of 20MT abrasive storage. Suitable partitions will be

provided for proper feeding of abrasives to each pressure blaster. Hopper will be fitted with level sensors which are connected to control panel and PLC
Hopper will have four discharge points with automatic abrasive control valved operated pneumatically to feed the pressure blasters. valves will be controlled through PLC and will also have manual control system.
Suitable support structure with platform, gratings, hand rails, toe guards, Ladder etc. will be provided

c. Pressure Blasters (Auto Control) Pressure Blasters (Auto Control)

- Four pressure blasters, each with a 1000L capacity.
- Automatic control system with pneumatic valves.
- Tungsten carbide nozzles (10mm) and 25-meter hoses per blaster.
- Moisture separator at the air inlet point.
- Pneumatic abrasive valve for controlled abrasive transfer.

Specification	Details
Quantity	4
Capacity	1000/2000 liter
Nozzles	Tungsten carbide, venture type ,10 mm sizex4 nos
Type	Automatic control and manual control required
Hose Length	25 meters per unit
Abrasive Flow Control	Pinch valve with rubber sleeve, controlled by a screw-type handle and manual operation also required.
Air-Abrasive Mixing	Special "T" section mixing point with work-hardening steel for durability.
Auto-Control System	Pneumatic valves operated via Deadman handles on blasting hoses.
Moisture Separator	Included at air inlet for removing moisture, with pressure gauge and drain.
Compressed Air Requirement	275 CFM at 7 kg/cm² per nozzle (to be provided by the customer).
Level signal	Level sensor required for indication of low level

3. Electrical Control Panel and Cabling

- Wall-mounted PLC control panel for centralized operation.
- Armored cabling for all motors and devices.
- Compliance with international standards and safety norms.
- Power-coated, dust-proof control panel cabinet.

Electric control panel with centralized operation panel will house all the control gears and systems of the equipment will be supplied with the equipment along with interconnecting cables. The control panel will conform to all International Standards, Specifications and Safety norms for all essential design and test features. The control panel cabinet will be power coated and will be dust roof with exhaust system. All motors will be provided with individual illuminated push buttons and the total system will be interlocked for safe and quick operations. All required AMP, Volt, Hour meters, selector switch, emergency stop, Reverse forward switches will be provided on the control panel as per requirement of equipment.

All motors and other electric equipment's will be connected to the main control panel with suitable size of cables in GI cable trays/conduits (wherever applicable). Cabling work is a part of erection activity. Control panel and dust collector will be located within 3 mtrs distance from equipment. If in case the Control penal or dust collector is required to be placed at more distance, the required cables/Trays have to be supplied by Purchaser free of cost. Suitable type single wire earthing cables will be provided for all motors up to the control panel.

4. Installation and Commissioning

a. On-site installation and commissioning of all equipment, including:

- Assembly of the abrasive suction recovery system.
- Setup of storage and re-feed system below the pneumatic separator.
- Installation of pressure blasters and connection to the abrasive feed system.
- Routing and installation of all electrical cabling, including cable trays.
- Testing of the control panel and integration with the abrasive recovery system.

b. Supervision and deployment of specialized personnel for

- Erection of equipment, including structural platforms and ladders.
- Calibration of pneumatic and control systems.
- Trial runs and performance testing.

5. Deliverables

- Fully installed and operational abrasive recovery and pressure blasting systems.
- Performance-tested equipment meeting specified standards.
- Operation and maintenance manuals.
- Warranty for 24 months from commissioning or 26 months from supply.
- O & M Manual will provide all data about the equipment its scheduled maintenance plan, details of lubricants, etc. Two sets of O & M Manuals will be supplied free of cost after the commissioning of the equipment.
- Spares price list required for Minimum two years
- Training the UCSL personal
- Third party testing certificate is required for the pressure vessels.
- Vender need to specify the thickness and material used for the fabrication of hopper and pressure blasters.

6. Painting and color for the equipment:

- All parts of the equipment will be coated with one coat of Epoxy primer after suitable surface preparation. Two coats of finish coat will be applied. Touch-up/part finish painting will be done after erection at the site
- The standard color shade is Phiroza blue for shot blasting equipment and off white for paint equipment

7. Final acceptance of equipment:

- Final acceptance of the installation is granted by the customer after a function test of the equipment, if without obvious influence the functionality problem during a period of one week. The acceptance will be confirmed in writing and be signed by authorized persons of both parties to the contract.

8. Work schedule

- The installation and commissioning of the equipment should be completed within **two** weeks.
- The maximum shutdown allowed for the blasting chamber **will be** 10 days.

9. Another requirement

- This is a turnkey job. So, vendor need to physically present for the pre bid meeting conducted in Malpe project site.